the series of coefficients after ordering" in Claim 6 was not shown. Applicant has amended Claim 6. Therefore, in view of the amendment to Claim 6, Applicant respectfully submits that the Examiner's objection under 37 C.F.R 1.830(a) as been obviated.

The Examiner objected to Claims 22-23 due to informalities in the claims. Applicant has amended Claims 22 and 23. Applicant respectfully submits that the amendments overcome the Examiner's objection.

The Examiner objected to Claim 11 as being of improper dependent form due to not further limiting the subject matter of the previous claim. Specifically, a previous amendment canceled Claim 10 from which Claim 11 depended. Applicant has canceled Claim 11. Therefore, Applicant respectfully submits that the Examiner's objection has been obviated.

Applicant has amended the claims, particularly to overcome the Examiner's rejection of indefiniteness under 35 U.S.C. §112 and to more clearly distinguish the invention from the prior art cited. The Examiner initially rejected claims 6, 11 and 17-21 under 35 U.S.C. §112, second paragraph. Accordingly, Applicant has amended claims 1, 6, 8, 12-13, 17, 20 and 22-23 to particularly point out and distinctly claim, in full, clear, concise and exact terms, the subject matter which Applicant regards as his invention.

The Examiner rejected Claims 1, 4-8 and 11-12 under 35 U.S.C. §103 as being unpatentable over Reusens, et al. in view of Shapiro and Woods. Applicant respectfully submits that the present invention is not obvious in view of Reusens, Shapiro and Woods. Specifically, the present invention sets forth that bits of coefficients are modeled by a context model based on known coefficients in other frequency bands and neighboring coefficients in the same frequency band. For instance, Claim 1 reads as follows:

...

compressing the series of coefficients into data representing a losslessly compressed version of the input data, including context modeling bits of each of the series of coefficients based on known coefficients in other frequency bands and neighboring coefficients in the same frequency band. (emphasis added)

Applicant respectfully submits that neither Reusens, Shapiro or Woods described context modeling of bits based on known frequency bands and neighboring coefficients. Therefore, Applicant respectfully submits that the present invention as claimed is not obvious in view of the combination of the cited references.

The Examiner rejected Claims 13 and 15-21 under 35 U.S.C. §103 as being unpatentable over Reusens in view of Shapiro, Woods and further in view of Hartung, et al. Applicant respectfully submits that the present invention as claimed is not obvious in view of Reusens, Shapiro, Woods and Hartung for the same reasons as described in the previous rejection. For example, Claim 13 sets forth that a portion of the coefficients are embedded coded using context modeling based upon known coefficients in other frequency bands and neighboring coefficients in the same frequency band. Claims 15-21 include similar limitations. Neither of the references set forth a context model that models the data using known frequency bands and neighboring coefficients. Therefore, Applicant respectfully submits that the present invention as claimed has not been obvious in view of Reusens, Shapiro, Woods and Hartung.

The Examiner rejected Claims 22-24 under 35 U.S.C. §103 as being unpatentable over Shapiro in view of Woods. Applicant respectfully submits that for the same reasons given above in the previous two rejections, the present invention as claimed is not obvious in view of Shapiro and Woods.

Applicant has added Claims 25-43. Claims 25-31 set forth that the overlapped reversible wavelet transform comprises a Two, Ten transform. Applicant respectfully submits that none of the cited references set forth a Two, Ten reversible wavelet transform filter. Therefore, Applicant respectfully submits that these claims are allowable. Claim 32 sets forth a decoder that includes a decompressor to decompress losslessly compressed input data and an overlapped reversible transform. The decompressor uses context modeling based on known coefficients in other frequency bands and neighboring pixels in the same frequency band. Applicant respectfully submits that, for the same reasons given above, Claim 32 is in condition for allowance. Claims 33-38 set forth dependent claims which state that the reversible wavelet transform or filter comprises a pair of non-minimal length reversible filters. Claims 39-43 set forth a system in which a Two,Ten reversible wavelet filter is included. Applicant respectfully submits that none of the cited references set forth a Two, Ten reversible wavelet filter. Therefore, Applicant respectfully submits that added Claims 25-43 are allowable and respectfully requests allowance of such claims.

Please charge any shortages and credit any overcharges to our Deposit Account No. 02-2666.

Respectfully submitted,

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Dated: 9/30, 1997

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